INTERNATIONAL

ASSOCIATION FOR TESTING MATERIALS.

AMERICAN SECTION.

BULLETIN No. 28. MAY, 1902

FIFTH ANNUAL MEETING.

The Fifth Annual Meeting of the American Section will be held at Atlantic City, N. J., on Thursday, Friday and Saturday, June 12, 13 and 14, 1902. The headquarters will be at the Hotel Traymore, where all sessions will be held. The first session will be a business meeting following the annual address of the Chairman. The second, third, fourth and fifth sessions will be devoted respectively to the consideration of Specifications, Steel, Cement, and Cast Iron. The third, or Cement Session, which will be held on Friday evening, will be in the form of an "Engineering Smoker."

PROGRAM.

FIRST SESSION, THURSDAY, JUNE 12, 8 P. M.

BUSINESS MEETING.

1. Reading of the Minutes of the Fourth Annual Meeting.
2. Annual Address by the Chairman.
3. Annual Report of the Executive Committee.
4. Miscellaneous Business.
5. Election of Officers.

[A blank ballot is sent with this Bulletin to all members. This may be filled out and forwarded by mail to the Secretary or it may be voted at the meeting. The ballot will close at 9 p. m.]

ON SPECIFICATIONS.

6. Report of the American Branch of Committee No 1.

7. Summary of the American and Foreign Comments on the Standard Specifications for Steel adopted by the American Section. Albert Ladd Colby.

8. Discussion of the following Modifications (shown in italics) in the Standard Specifications for Steel Rails (adopted by the American Section), embodied in the Specifications for Steel Rails adopted by the American Engineering and Maintenance of Way Association, at the Annual Meeting in Chicago, March 18, 19, 20, 1902.

(*a*) DROP TEST.—One drop test shall be made on a piece of rail not more than six feet long from *every* blow of steel. The test piece shall preferably be taken from the top of the ingot. The rail shall be placed head upwards on the supports, and the various sections shall be subjected to the following impact tests:

Weight of rail. Pounds per yard.				Height of drop. Feet.
45	to and including	55	.....	15
More than 55	"	65	.....	16
" 65	"	75	.....	17
" 75	"	85	.....	18
" 85	"	100	.....	19

If any rail break when subjected to the drop test, two additional tests will be made of other rails from the same blow of steel, and if either of these latter tests fail, all the rails of the blow which they represent will be rejected, but if both of these additional test pieces meet the requirements, all the rails of the blow which they represent will be accepted.

(*b*) HEAT TREATMENT.—*The number of passes and speed of train shall be so regulated that on leaving the rolls at the final pass the temperature of the rail will not exceed that which requires a shrinkage allowance at the hot saws of — inches for 85-pound and — inches for 100-pound rails, and no artificial means of cooling the rails shall be used between the finishing pass and the hot saws.*

(*c*) LENGTH OF RAILS.—The standard length of rails shall be *thirty-three* feet. Ten per cent (10 %) of the entire order will be accepted in shorter lengths, varying by even feet down to *twenty-seven* feet (*27'*). A variation of one-fourth of an inch (¼") in length from that specified will be allowed.

The corresponding clauses in the Standard Specifications, adopted by the American Section, are as follows (all differences are shown in *italics*):

(*a*) DROP TEST.—One drop test shall be made on a piece of rail not more than six feet long, selected from every *fifth* blow of steel. The rail shall be placed head upwards on the supports and the various sections shall be subjected to the following impact tests:

Weight of rail. Pounds per yard.			Height of drop. Feet.
45 to and including	55	.....	15
More than 55	" 65	.....	16
" 65	" 75	.....	17
" 75	" 85	.....	18
" 85	" 100	.....	19

If any rail break when subjected to the drop test, two additional tests will be made of other rails from the same blow of steel, and if either of these latter tests fail all the rails of the blow which they represent will be rejected, but if both of these additional test pieces meet the requirements, all the rails of the blow which they represent will be accepted. *If the rails from the tested blow shall be rejected for failure to meet the requirements of the drop test as above specified, two other rails will be subjected to the same tests, one from the blow next preceding, and one from the blow next succeeding the rejected blow. In case the first test taken from the preceding or succeeding blow shall fail, two additional tests shall be taken from the same blow of steel, the acceptance or rejection of which shall also be determined as specified above, and if the rails of the preceding or succeeding blow shall be rejected, similar tests may be taken from the previous or following blows, as the case may be, until the entire group of five blows is tested, if necessary.*

The acceptance or rejection of all the rails from any blow will depend upon the results of the tests thereof.

(*b*) HEAT TREATMENT.—*No test specified.*

(*c*) LENGTH OF RAILS.—The standard length of rails shall be *thirty* feet (30′). Ten per cent (10 %) of the entire order will be accepted in shorter lengths, varying by even feet down to *twenty-four* feet (24′). A variation of one-fourth of an inch (¼″) in length from that specified will be allowed.

9. Topical Discussion on the Question: "Is it Desirable to Specify a Single Grade of Open-Hearth Structural Steel for Bridges of Ordinary Spans?" Messrs. A. P. Boller, Theodore Cooper, J. E. Greiner, John McLeod, C. C. Schneider, J. P. Snow and others will participate in this Discussion.

10. Reports of American Branches of International Committees on all subjects other than those relating to Cement and Cement Mortars.

11. Reports of Committees of the American Section.

12. Miscellaneous Business.

THIRD SESSION, FRIDAY, JUNE 13, 3 P. M.

ON STEEL.

13. Finishing Temperature and Structure of Steel Rails. Albert Sauveur.

14. Rail Temperatures. S. S. Martin.

The discussion of the above papers will be opened by Messrs. Robert Job and P. H. Dudley.

15. The Relation Between the Basic Open-Hearth Process and the Physical Properties of Steel. C. B. Dudley.

16. The Ethics of Testing. P. Kreuzpointner.

17. Miscellaneous Business.

Fourth Session, Friday, June 13, 8 p. m.

On Cement.

"Engineering Smoker."

18. The Correlation of Cement Specifications. R. W. Lesley.

19. The Advantages of Uniformity in Methods of Testing and Specifications for Cement. G. S. Webster.

The discussion of the above papers will be opened by Mr. W. A. Aiken.

20. The Chemical Analysis of Cement: Its Possibilities and Limitations. R. K. Meade.

The discussion will be opened by Mr. Clifford Richardson.

21. Cement Testing in Municipal Laboratories. R. L. Humphrey.

22. Tests of Reinforced Concrete Beams. W. K. Hatt.

23. Reports of the American Branches of International Committees on Cement and Cement Mortars.

24. Miscellaneous Business.

Fifth Session, Saturday, June 14, 10 a. m.

On Cast Iron.

25. Notes on the Constitution of Cast Iron. Henry M. Howe.

26. Effect of Variations in the Constituents of Cast Iron. W. G. Scott.

Papers 25 and 26 will be discussed jointly.

27. Present Status of Testing Cast Iron. R. G. Moldenke.

28. The Need of Foundry Experience for the Proper Inspection and Testing of Cast Iron.

29. A Quick Foundry Contraction Test for Metals. Thomas D. West.

Papers 27, 28 and 29 will be discussed jointly.

30. High Strength of White Iron Castings as Influenced by Heat Treatment. A. E. Outerbridge.

31. Digest of Current Specifications for Cast Iron Pipe. Walter Wood.

32. Miscellaneous Business.